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Editorial — Special issue: Heart Failure

Heart failure

Heart failure is undoubtedly one of key issues in current cardiology. Since basic pharmacological therapy and the only non-pharmacological alternative, cardiac transplant, in the 1980s, comprehensive therapy for heart failure has changed dramatically over the last two decades. We have prepared this special issue of *Cor et Vasa* devoted to current trends in the diagnosis and management of heart failure. A total of 17 original research articles include reviews such as comparison of the 2011 Czech Society of Cardiology guidelines and 2012 European Society of Cardiology recommendations as well as an updated overview of natriuretic peptides, novel biomarkers for heart failure, and current options for influencing the pathophysiologic mechanisms of cardiac remodeling. Also discussed are BNP dynamics in patients admitted for acute heart failure and the impact of inflammatory changes and viral infection on the development of dilated cardiomyopathy. Six articles deal with cardiac transplant, including the role of hemodynamic support in transplant programs. Last but not least, attention is paid to the discussed but unresolved issues of optimization in non-responders to cardiac resynchronization therapy, already a standard non-pharmacological approach to advanced heart

failure. These are supplemented with presentation of novel statistical methods applied to data from the AHEAD registry.

We would like to demonstrate that heart failure issues constitute a modern, rapidly developing part of cardiology with a promising future in both pharmacological (see examples of new molecules in [Table 1](#)) and non-pharmacological therapy.

Jiří Vítovec*

Brno and School of Medicine Masaryk University, 1st Department of Internal Medicine—Cardioangiology, St. Anne's University Hospital, Street: Pekařská 53, 656 91 Brno, Czech Republic
E-mail address: jiri.vitovec@fnusa.cz

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Table 1 – New molecules and studies in the pharmacological therapy of heart failure.

Molecule/study	N	Clinical study phase	Primary endpoint
Myosin activator—omecamtiv mecarbil ATOMIC-AHF	600	2	Dyspnea improvement
Serelaxin—a first-in-class recombinant form of human hormone relaxin 2 RELAX-AHF	70	2	Hemodynamic response
Dual-acting angiotensin receptor-neprilysin inhibitor (LCZ696) PARAMOUNT	301	2	Change in NT-proBNP from baseline to 12 weeks of treatment
Ularitide TRUE-AHF	2116	3	Composite endpoint
Dopamine × nesiritide × placebo ROSE-AHF	360	4	72-h urinary volume, change in cystatin C
Oral metolazone and intermittent intravenous furosemide versus continuous infusion furosemide in acute heart failure	160	4	Daily net fluid output
High-dose furosemide × low-dose × low-dose+dopamine DAD-HF-2	450	4	1-year mortality or rehospitalization
Tolvaptan TACTICS-HF	250	3	Dyspnea improvement

*Tel.: +420 543 18 2200; fax: +420 543 18 2205.